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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,460	12/28/2001	Pieter Tjerk Koopman	3135-011614	9480

7590 01/18/2007

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EXAMINER	
AN, SHAWN S	
ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/937,460	KOOPMAN, PIETER TJERK	
	Examiner	Art Unit	
	Shawn S. An	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22,24,26-34,36,40 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22,24,26-34,36,40 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. The request filed on 11/24/06 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/937,460 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. As per Applicant's instructions as filed on 11/24/06, claims 22, 24, 26, 28-29, 33-34, 36, 40, and 42 have been amended, and claims 1-21, 23, 25, 35, 37-39, and 41 have been canceled.

Response to Remarks

3. Applicant's arguments with respect to amended claims as above have been carefully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 22 recites the limitation ""the structure" on line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 22, 24, 26-29, 31-34, 36, 40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bacus (4,175,860)(Primary reference) in view of Bacus (4,741,043) (Secondary reference) and Bacus et al (5,134,662) (Third reference).

Regarding claims 22, 27, and 36, Bacus discloses a device for selecting and recording an image of an irradiated or emissive object, comprising:

an object holder (Fig. 1, 10) for positioning a structure/object (slide comprising cell(s)) in a stationary position (*after controlling of the X and Y controllers, it is subsequently in a stationary position, thus the object holder takes stationary form*) (col. 6, lines 17-24; col. 7, lines 62-68);

at least one mirror (20 or 28) for reflecting an image of the object; and

a camera (32), for selecting a part of the image from the reflected image of the object while holding the object in the stationary position (*see also above explanation*) (Fig. 1; col. 6, lines 29-68; col. 7, lines 1-10 and lines 62-68; col. 8, lines 1-30).

Note: the beam splitter (20) is defined as a mirror or prism that is used to divide a beam of radiation into two or more parts.

Bacus does not particularly disclose at least one mirror being displaceable. However, Bacus et al (third reference) teaches at least one displaceable mirror so that the Bacus' mirror is displaced around a single rotation axis such as to select a part of the image from the reflected image of the object.

Furthermore, Bacus does not specifically disclose recording an image of an irradiated or emissive object comprising complexes of DNA, RNA, or protein.

However, Bacus (primary reference) teaches property measure of cells in terms of such features as DNA content ..., and the ratio of the size of nucleus to that of the cytoplasm (col. 1, lines 50-59).

Moreover, Bacus (secondary reference) teaches recording an image of an irradiated or emissive object comprising complexes of DNA, and placing the DNA content in stationary position for cellular image analysis (col. 3, lines 42-59; col. 4, lines 39-58).

Therefore, it would have been obvious to a person of skill in the art employing a device for selecting and recording an image as taught by Bacus to easily substitute the cell object with the DNA, or additionally analyze the DNA for the cellular image analysis, and further incorporate Bacus et al's teaching as above so that the Bacus' (third ref.) mirror is displaced around a single rotation axis such as to better select a part of the image from the reflected image of the object as an *alternative* efficient way to select and record an image of an irradiated or emissive object.

Regarding claim 32, it is considered quite obvious for Bacus's device to be provided with a housing in order to protect the device from dirt, dust, irradiation, liquid pour, vandalism, etc.

Furthermore, the Examiner takes official notice that a housing such as Bacus's device, or any other electrical device usually is completely sealed (radiation sealed as well) for the purpose of protection and prevention so at least the external irradiation by a radiation source does not interfere with the internal radiation source in the device.

Regarding claims 26 and 40, Bacus (primary) does not specifically disclose a radiation source for irradiating the object positioned by the object holder.

However, Bacus et al (third) teaches the radiation source (Fig. 2, 19) for irradiating the structure positioned by the object holder (51).

Therefore, it would have been obvious to a person of skill in the art employing a device for selecting and recording an image as taught by Bacus to incorporate the well known concept of the radiation source for irradiating the object as above as taught by Bacus et al as an effective tool for sensing an image.

Regarding claim 24, Bacus (primary) does not specifically disclose the mirror being rotatable around a single rotation axis.

However, Bacus et al (third) teaches the mirror (Fig. 3, 160) being rotatable around a single rotation axis for the purpose of reflecting a chosen part of the image of the object to a viewing area (col. 27, lines 48-50).

Therefore, it would have been obvious to a person of skill in the art employing a device for selecting and recording an image as taught by Bacus to incorporate the well known concept of mirror rotation as above as taught by Bacus et al so that the Bacus's mirror can be rotatable around a single rotation axis for the purpose of reflecting a chosen part of the image to a viewing are for an effective way of taking/capturing/sensing an image.

Regarding claim 33, Bacus (primary) discloses the camera being displaceable in the viewing area substantially parallel to the rotation axis of the at least one rotatable (assume combination) mirror having an elongated form (see Fig. 1).

Regarding claims 28 and 42, Bacus (third) discloses the radiation source being disposed on the side of the object remote from the at least one mirror (Fig. 2, 19).

Regarding claim 29, a drive means for rotating the at least one mirror is considered an inherent feature, because the mirror can't rotate by itself.

Regarding claim 31, a linear guide means for guiding the camera is considered an obvious feature to hold the camera in place.

Regarding claim 34, it would have been considered obvious to make the at least one rotatable mirror, rotatable axis, and a drive means for rotation to be integral with the camera so that the object image is totally aligned with the rotatable mirror, rotatable axis, and the camera.

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bacus, Bacus (secondary), and Bacus (third) as applied to claim 22 above, and further in view of Liu et al (5,998,796).

Regarding claim 30, Bacus does not specifically disclose drive means for displacing the camera.

However, it is well known in the image processing art for a camera to rotate in a desired angle for an effective way of taking/capturing/sensing an image.

Furthermore, Liu et al teaches a detector system for performing sample analysis such as DNA sequencing/fingerprinting (col. 1, lines 9-16) comprising an example of camera displacement/rotation for correcting such as any skew among the received pixels in the sensed image (col. 4, lines 40-49).

Moreover, a drive means for displacing the camera is considered an inherent feature, because the camera can't displace/move by itself.

Therefore, it would have been obvious to a person of skill in the art employing a device for selecting and recording an image as taught by Bacus to incorporate the well known concept of camera displacement as taught by Liu et al so that the Bacus's camera can be displaced for correcting such as any skew among the received pixels in the sensed image, thereby effectively taking/capturing/sensing an image.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

SHAWN AN
PRIMARY EXAMINER

1/16/07